

WARRICK COUNTY BRIDGE NO. 266  
Spanning Cypress Creek on County  
Road 550 West (Vanada Road)  
3.3 miles East of Newburgh  
Newburgh Vicinity  
Warrick County  
Indiana

HAER No. IN-81

HAER  
IND  
87-NEBU.V.  
1-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD  
National Park Service  
Northeast Region  
Philadelphia Support Office  
U.S. Custom House  
200 Chestnut Street  
Philadelphia, P.A. 19106

HISTORIC AMERICAN ENGINEERING RECORD

WARRICK COUNTY BRIDGE NO. 266

HAER NO. IN-81

HAER  
IND  
87-NEBU-V,  
2-

Location: Spanning Cypress Creek on County Road 550  
West (Vanada Road) 3.3 miles east of  
Newburgh  
Newburgh Vicinity  
Warrick County  
Indiana

UTM: 16.469250.4199400  
Quad: Yankeetown, IND.- KY.  
Warrick County, Indiana

Engineer: INDIANA BRIDGE COMPANY (IBCo)

Builder: INDIANA BRIDGE COMPANY (IBCo)  
Indianapolis, Indiana

Date of  
Construction: 1904  
Alterations, 1973, 1976

Present Owner: Warrick County  
Courthouse, 109 West Main Street,  
Boonville, Indiana 47601

Present Use: Vehicular and pedestrian bridge.

Significance: This bridge is an example of a pinned Pratt  
pony truss founded on caissons with one steel  
I-beam approach span at each end of the  
truss. This bridge is of significance  
because of the caisson foundations.

Project  
Information: This documentation was undertaken and  
completed in 1994 in accordance with the  
Memorandum of Agreement between the Warrick  
County Commissioners, the Indiana Department  
of Transportation, the Advisory Council on  
Historic Preservation, The Federal Highway  
Administration and the Indiana State Historic  
Preservation Office as a mitigation measure  
prior to the demolition of the bridge.

Mr. Robert L. Smith, P.E.  
Warren T. Hobson and Associates, Inc.  
567 Westfield Boulevard, West Drive  
Indianapolis, Indiana 46208

### Description

Warrick County Bridge No. 266 was constructed on the present alignment as a structure without any skew but at an angle of about 10 degrees to the channel. The grade of the existing roadbed was chosen to provide some overflow area during periods of flooding.

This Structure consists of a 29.0' steel I-beam span, an 81.0' Pratt pony truss span and a 29.0' steel I-beam to provide a structure 139.0' in length. Because of the lack of information available for this project it is unclear as to who erected this structure. However, it is clear that the Indianapolis Bridge Company of Indianapolis, Indiana provided the design and steel materials used for this structure.

The 81.0' pinned Pratt pony truss span rests on two steel caissons filled with concrete at each end of the truss. An I-beam connects the caissons and serves as the bearing point for the I-beam span and the truss stringers. The opposing I-beam ends rest on stone abutments. The truss bears directly on the caissons. The 81.0' span is subdivided into 5 panels by verticals consisting of laced Angles. The top chord is straight and consists of laced channels. The diagonals are all double die-forged eyebars with the center panel crossed to act as a counter. The bottom chord is straight and consists of various sizes of double die-forged eyebars. The pin connection at each vertical is connected to the I shaped floor beams by two U-bolts. The floor beams support the I shaped stringers which in turn support the timber deck. Alterations to this structure to increase the carrying capacity of the structure were made circa 1975. Utility attachments were made circa 1973 and are not connected to the truss proper. This structure has a 14.0' clear roadway and unlimited vertical clearance.

### History of County Bridge No. 266

A search of the records of the Warrick County Board of Commissioners yielded very little information on this structure except that the present structure replaced a 60' by 14- wooden bridge that was completed in November 1898 at a cost of \$375.

A diligent attempt was made to determine the historical significance of County Bridge No. 266. A detailed listing of the references which were researched has been provided.

History of County Bridge No. 266 (Continued)

This bridge, constructed in 1904 (1) appears to have been a part of a dredging project for Cypress Creek that began in August 1900 and continued until August 1925. Records of the Warrick County Commissioners indicate that several bridges were affected by this project and that many structures were either rehabilitated or replaced under this contract.

However, the only specific record for this bridge exists from the records stating that this structure was manufactured in August 1904. This date coincides with the dredging project for Cypress Creek. Further information was not located.

In addition, Warrick County embarked on an ambitious program to provide steel bridges in every part of the County at about the same time as the dredging project. Again, very little information is available on the location of the many structures that were built.

Local testimony indicates that a structure has existed at this site for at least 75 years but could not pinpoint the type of construction or a date of construction. The dredging of Cypress Creek is also remembered.

Builder/Fabricator

The Indiana Bridge Company, which was started in Muncie Indiana by five influential promoters on May 15, 1886, is the oldest manufacturing plant in Indiana. In the early years the company's primary activities were the construction of small truss spans and leg bridges, more particularly for county commissioners in Indiana and adjoining states. This field allowed for the promotion of the design, fabrication, and erection of both girder type bridges and longer truss spans over rivers and lowlands. The name, Indiana Bridge Company was often mentioned as being synonymous with the best bridge construction.

By 1894 The Indiana Bridge Company was a well known and respected name in steel construction. The company expanded to provide three types of service; engineering, manufacturing, and erection. A staff of skilled engineers designed structures to meet the need of their customers. Skilled craftsmen translated these designs into the various components. Several crews were busy spring through fall erecting the various structures using whatever local material and equipment that was available.

Design of County Bridge 266

The original Pratt was patented in 1844 and, even though it appeared similar to a standard Howe truss, the design utilized the use of tension in the diagonals which were used as counters to reduce the danger of buckling of longer web members. As time progressed engineers recognized the redundancy of the number of diagonal counters and eventually reduced the number of diagonals used as counters to the most central members as a weight savings and as a method to improve the load carrying capacity of the truss. The use of laced channels, or later laced angles to save weight, remained a part of the design of the Pratt Truss. The transition from pinned to riveted or bolted Pratt Trusses occurred in the first decade of the twentieth century.

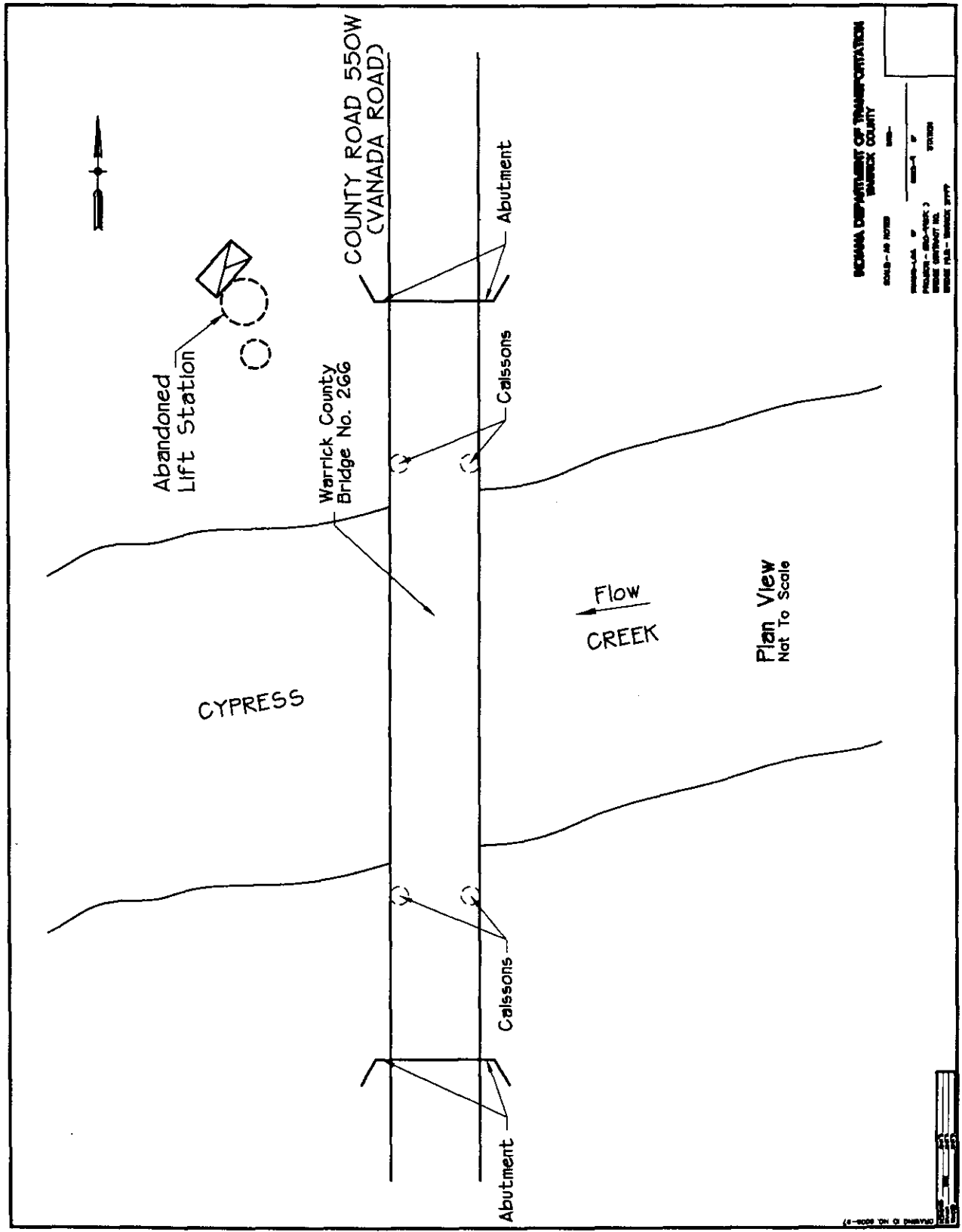
County Bridge 266 is a common variation of a pinned Pratt pony truss. The system chosen for this structure provides approach spans of I-beams and a center truss span. These spans were designed in steel and supported a timber deck that could be repaired or replaced as necessary.

The approach were designed to bear on stone abutments at one end and to bear on an I-beam connecting the foundations for the truss. The foundation provided for the truss consists of twin steel caissons constructed to a depth that would provide a suitable base and would be less susceptible to erosion during periods of heavy stream flow. The caissons were tied together with a braced I-beam, used to support the truss stringers and the I-beam span, and a cross frame of iron rods.

SOURCES OF INFORMATION

1. Cooper, James L., Iron Monuments to Distant Posterity, Indiana's Metal Bridge, 1870-1930, 1984
2. Records and minutes of the Warrick County Board of Commissioners (1895-1920)
3. Warrick County Bridge Inspection Report, 1974
4. Local testimony pertaining to the dredging of Cypress Creek and existence of the structure.
5. Microfilm records, Boonville Weekly Esquire, (1890-1920) Warrick County Library, Boonville, Indiana
6. Warrick County Museum, Boonville, Indiana
7. Historic Newburgh, Newburgh, Indiana
8. 4 Histories of Warrick County, 1868, 1882, 1909, 1931
9. Indiana from Frontier to Industrial Commonwealth, Volume I-IV, Lewis Historical Publishing Co., 1954

WARRICK COUNTY BRIDGE NO. 266  
HAER NO. IN-81 (Page 6)



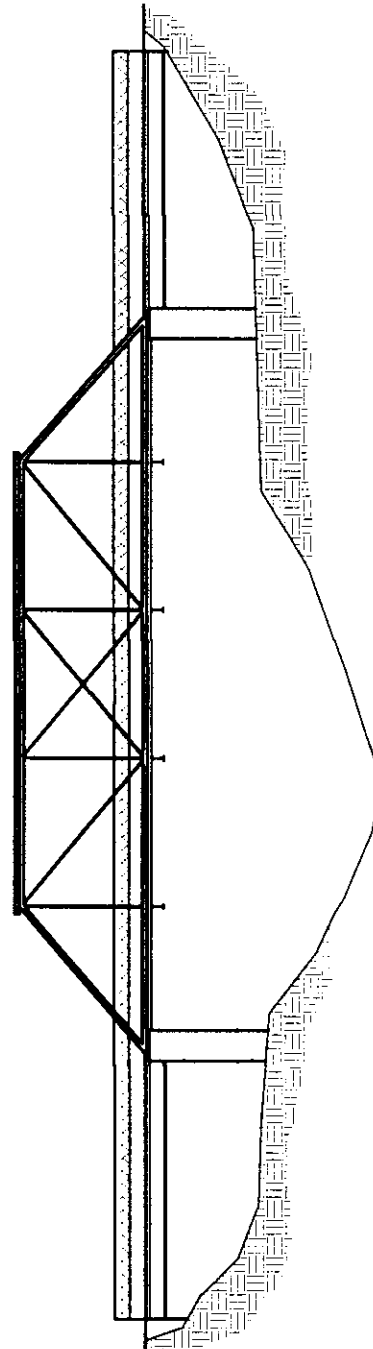
INDIANA DEPARTMENT OF TRANSPORTATION  
WARRICK COUNTY

SCALE - AS NOTED

DESIGNED BY  
PROJECT - BRIDGE 266  
CONTRACT NO.  
DATE FOR - 1981

266

WARRICK COUNTY BRIDGE NO. 266  
HAER NO. IN-81 (Page 7)



Elevation View  
Not To Scale  
October 1994

INDIANA DEPARTMENT OF TRANSPORTATION  
WARRICK COUNTY

SCALE - AS NOTED

DESIGNED BY: [ ]  
CHECKED BY: [ ]  
INCHES - 1/4" = 1'-0"

PROJECT - BRIDGE NO. 266  
DRAWING CONTRACT NO. [ ]  
DATE P.L.B. - 08/08/94